

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,521		07/28/2003	Stephen R. Elgin II	15NM5686	1520
27256	7590	01/03/2005		EXAM	INER
ARTZ & A	ARTZ, P.C	<b>2.</b>	ROJAS, BERNARD		
28333 TELI SUITE 250	EGRAPH I	RD.	ART UNIT	PAPER NUMBER	
SOUTHFIE	LD, MI	48034	2832		
				DATE MAILED: 01/02/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

		$M \iota \sim$
	Application No.	Applicant(s)
	10/604,521	ELGIN ET AL.
Office Action Summary	Examiner	Art Unit
	Bernard Rojas	2832
The MAILING DATE of this communication a Period for Reply	appears on the cover sheet wi	th the correspondence address
A SHORTENED STATUTORY PERIOD FOR REI THE MAILING DATE OF THIS COMMUNICATION  - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a  - If NO period for reply is specified above, the maximum statutory peri  - Failure to reply within the set or extended period for reply will, by sta Any reply received by the Office later than three months after the may earned patent term adjustment. See 37 CFR 1.704(b).	N. 1.136(a). In no event, however, may a r reply within the statutory minimum of thin iod will apply and will expire SIX (6) MON tute, cause the application to become AE	eply be timely filed  y (30) days will be considered timely.  THS from the mailing date of this communication.  ANDONED (35 U.S.C. § 133).
Status		
<ul> <li>1) ⊠ Responsive to communication(s) filed on 02</li> <li>2a) ☐ This action is FINAL. 2b) ⊠ T</li> <li>3) ☒ Since this application is in condition for allow closed in accordance with the practice under</li> </ul>	his action is non-final. wance except for formal matt	
Disposition of Claims		
<ul> <li>4) ☐ Claim(s) 1-20 is/are pending in the application 4a) Of the above claim(s) 12-20 is/are withd</li> <li>5) ☐ Claim(s) is/are allowed.</li> <li>6) ☐ Claim(s) 1-7, 10,11 is/are rejected.</li> <li>7) ☐ Claim(s) 8 and 9 is/are objected to.</li> <li>8) ☐ Claim(s) are subject to restriction and</li> </ul>	rawn from consideration.	
Application Papers		
9) The specification is objected to by the Exam  10) The drawing(s) filed on is/are: a) a  Applicant may not request that any objection to the Replacement drawing sheet(s) including the constant of t	accepted or b) objected to the drawing(s) be held in abeyang rection is required if the drawing	nce. See 37 CFR 1.85(a). (s) is objected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for fore  a) All b) Some * c) None of:  1. Certified copies of the priority docum  2. Certified copies of the priority docum  3. Copies of the certified copies of the papplication from the International Bur  * See the attached detailed Office action for a	ents have been received. ents have been received in A priority documents have been reau (PCT Rule 17.2(a)).	application No received in this National Stage
Attachment(s)	<b>∧</b> □ (-\	Summany (DTO 413)
<ol> <li>Notice of References Cited (PTO-892)</li> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB. Paper No(s)/Mail Date</li> </ol>	Paper No(	Summary (PTO-413) s)/Mail Date nformal Patent Application (PTO-152) 

## **DETAILED ACTION**

## Election/Restrictions

Applicant's election without traverse of Group I in the reply filed on 10/07/2004 is acknowledged.

# Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Herndon et al. (2004/0051612 A1).

Claim 1, Herndon et al. discloses a method of fabricating a superconducting magnet coil support structure comprising: designing a preformed support tooling for the superconducting magnet coil support structure (180); fabricating said preformed support tooling (182); performing a wet winding process to form said superconducting magnet coil support structure comprising (184); winding a first resin material onto said preformed support tooling to form a base; and applying a second resin material onto said base to form a plurality of spacers and a plurality of pockets on said base; and

curing said superconducting magnet coil support structure (186); and removing said preformed support tooling from said superconducting magnet coil support structure (190, Figure 5).

Claim 2, Herndon et al. discloses a method as in claim 1 wherein the step of designing said preformed support tooling further comprising: determining dimensions of the superconducting magnet; determining dimensions of space available for said superconducting magnet coil support structure; determining a mounting configuration of said superconducting magnet coil support structure; designing dimensions of said superconducting magnet coil support structure to accommodate for said dimensions of said superconducting magnet, said dimensions of space available, and said mounting configuration; and designing dimensions of said preformed support tooling (paragraphs 6-8).

Claim 3, Herndon et al. discloses a method as in claim 1 wherein the step of performing a wet winding process further comprises: winding prepreg onto said preformed support tooling to form a base; and applying fiber cloth onto said base to form a plurality of spacers and a plurality of pockets on said base (paragraph 31).

Claim 4, Herndon et al. discloses a method as in claim 1 wherein the step of performing a wet winding process further comprises: winding said first resin material onto said preformed support tooling to form a base; then inserting said base into a vacuum chamber; curing said base; and applying said second resin material onto said base (paragraph 40).

Claim 5, Herndon et al. discloses a method as in claim 1 wherein applying a first resin material and applying a second resin material comprises applying a resin material selected from fiberglass tape with epoxy (paragraph 5-6).

Page 4

Claim 6. Herndon et al. discloses a method as in claim 1 wherein the step of performing a wet winding process further comprises winding fiber cloth having strands of fiber onto said preformed support tooling (paragraphs 5-6).

Claim 7, Herndon et al. discloses a method as in claim 6 wherein the step of winding fiber cloth onto said preformed support tooling further comprises varying the widths of said fiber cloth to form said plurality of spacers and said plurality of pockets (paragraphs 5-6).

Claim 10, Herndon et al. discloses a method as in claim 6 wherein the step of winding fiber cloth is performed by a computer numerically controlled (CNC) multi-axis winder (paragraph 38).

Claim 11. Herndon et al. discloses a superconducting magnet coil support structure formed according to the method of claim 1 (Figures 2 and 3).

# Allowable Subject Matter

Claims 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2832

## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Rojas whose telephone number is (571) 272-1998. The examiner can normally be reached on M-F 8-4:00), every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Br

Elmtin 5PE-AU2832 12/27/19

Page 5